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ABSTRACT

Presented are Indiana state guidelines for the development of programs to serve physically and multiply handicapped students. Given are definitions and eligibility requirements for special class placement. Characteristics and classifications of cerebral palsy, cardiac disorders, and convulsive disorders are described. A glossary of 27 terms such as seizure and reflex is offered. Questions are offered to aid in the establishment of program objectives. Discussed are the following educational aspects: behavior disorders (such as distractibility and perseveration), self care, communications, writing, intellectual functioning, and classroom management. Considered in a section on the environmental learning center is room design, furniture, blackboards, acetate boards, wheelchairs, and braces. A resource guide lists approximately 35 books or sources of further information. Also listed are names and addresses of 15 Indiana agencies serving the handicapped. State guidelines and the educational implications for the multiply handicapped child are briefly noted. (DB)

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AN APPROACH TO PROGRAM DEVELOPMENT

Physical-Multiple Handicapped

West Central Joint Services For Handicapped
4800 Rockville Road
Indianapolis, Indiana 46224

THIS PROJECT DEVELOPED THROUGH TITLE III ESEA

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State Guidelines

GUIDELINES FOR COMPREHENSIVE SPECIAL EDUCATION PLANS AS REQUIRED BY CHAPTER 396, ACTS OF 1969

F. The Physically Handicapped

1. **Population Base**—A total school population of approximately 30,000 children may be needed in order to serve this category effectively. With this population base, physical and occupational therapy, required by these seriously physically-involved children, can be supplied.
2. **Joint School Services and Supply Program**—If a school corporation is unable to provide an adequate program, it must plan to join with other school corporations to provide services for these children.
3. **Grouping Arrangements**—No less than a two-level special grouping arrangement (similar to the following) is required:
   a. **Elementary Level**—These children should participate in regular classes insofar as physical involvement and mobility permits.
   b. **Secondary Level**—These children should participate in regular classes on a part-time basis whenever feasible and should be returned to the regular program full-time when possible.
4. **Class Size**—Class size might range from no fewer than four to no more than fifteen children . . . as determined by the availability of teacher aides and the severity of the handicapping conditions.
5. **Para-Professionals**—The use of classroom para-professionals is encouraged as per rules and regulations of the Commission on General Education (in preparation).
6. A matron may be needed to assist the teacher (s).
7. **Secondary School Program**—The secondary school program shall include two major emphases to accommodate two widely varying groups of children:
   a. Regular subject-matter curricula for intellectually average or superior physically handicapped students.
   b. A program shall be work-oriented in nature to provide physically handicapped students with opportunities for work-study assignments, prevocational counseling, and prevocational training. The provisions in Section D. 6. are applicable.
8. **Special Personnel**—In addition to a teacher, the services of the following specialist on either a contracted basis or full or part-time employment are required:
   a. Physical therapist and/or occupational therapist
   b. Speech and hearing therapist
9. **Special Housing**—The special class should be housed in a school building in which compensations have been made for architectural barriers.
10. **Transportation**—School corporations must provide transportation to and from school for physically handicapped children in accordance with provisions of the Rules and Regulations of the Commission on General Education.

Definition

DEFINITIONS

Special classes and programs to be approved under the provisions of these statutes shall provide instruction for children between 5 and 21 years of age inclusively, who have a physical and/or mental disability which makes regular classroom activity impractical or impossible, and who are not in attendance in any of the residential schools of the state, but who, with the advantage of a special education program, may be expected to benefit from instruction.

ELIGIBILITY

E. Special Classes for the Physically Handicapped

An evaluation by a physician is required.

A psychological evaluation is required by a licensed school psychologist, school psychometrist, or a mental health or child guidance clinic approved by the Commission on General Education. This evaluation shall include an investigation of mental, physical, social and emotional factors and an assessment of achievement in school subjects. The psychological report shall be written as indicated in the Handbook on Psychological Evaluation of Children Who are Exceptional.

Class size shall be determined by the director of special education or other school administrator if there is no director.

PHYSICALLY HANDICAPPED

All types of children with all types of crippling conditions are generally included in this group. Some are readily recognized such as the polio victim, the cerebral palsied, the child with muscular dystrophy, or multiple sclerosis.

Others with such conditions as heart disease, tuberculosis, or mild brain injury may appear perfectly normal until examined by professionally competent persons. Physically handicapped conditions may be permanent or temporary, mild or severe. In some cases the conditions may be less of a problem than the emotional disorder resulting from the handicap.

(as stated in Exceptional Pupils
Special Education Bulletin No. 1
(Revised)

One who has an orthopedic or other health impairing problem which a licensed physician in his daignosis finds to be a serious impairment of the child's locomotion or motor functions leading to an inability to function in the regular school program or a need for greater protection than the regular school program provided.

(as stated by West Central Joint Services
Eligibility and Admissions Procedures

Characteristics and Classification

Children having orthopedic handicaps or special health problems (Rule S-1), are included under the broad definition of physically handicapped. A single definition is insufficient for this child as is a list of general characteristics. Within the classroom for the physically handicapped we find those children whose locomotion is severely impaired because of a brace or a restraining device, those who are confined to wheelchairs, children whose limbs remain rigid and imobile without braces, others who cannot control the spastic and involuntary movement of their limbs and some who do not have adequate use of hands and fingers. There are other children within the classroom whose locomotion is not impaired. They have the freedom of movement of any child, however, special health problems such as a severe blood condition, rheumatic fever, and epilepsy curtail their activities.

One of the largest groups of children classified as physically handicapped are those with neurological disorders which are manifested in the syndrome "cerebral palsy." The following functional classification of observed behavior in the cerebral palsy child can serve as a starting point and a foundation for prescriptive programming.

I. PHYSIOLOGICAL (motor)

A. Spastic

a. Hypertension of muscles causing stiff and awkward movements.

b. Characterized by a lower threshold of the stretch reflex. (The pathologic stretch reflex must be present to make a diagnosis of spasticity.)

c. A tendency toward greater involvement and contractures, affecting the antigravity muscles.

B. Athetosis

a. Constant, irregular, involuntary, and aimless motion.

b. Uncontrolled and incoordinate motions with varying degrees of tension.

C. Rigidity

a. Difficulty in extending arms and legs because muscles are partially contracted all the time.

b. A disturbance of the agonist-antagonist relations with resistance to slow passive motion of both muscle groups. If the resistance to passive motion is continuous, it is referred to as leadpipe rigidity; if discontinuous, as cogwheel rigidity.

c. The resistance is greater to slow than to rapid motion.

D. Tremor

a. Involuntary trembling or quivering of hands, arms or neck.

b. Uncontrollable, alternativin, or pendular pattern due to alternate agonist and antagonist contractions.

II. TOPOGRAPHICAL

A. Monoplegia–involves one limb. (rare)

B. Paraplegia–involves the legs only and practically always of the spastic or rigidity type.

C. Hemiplegia–The laterized one-half of the body is affected and it is usually spastic, although pure athetoid hemiplegias are occasionally seen, as are pure rigidity hemiplegias.

D. Triplegia–involves three extremities, usually both legs and one arm, usually spastic. This may represent hemiplegia plus paraplegis, or incomplete quadraplegia.

E. Quadraplegia–involvement of all four extremities. Patients with the greatest involvement of the legs are usually spastic, and the patients with the greatest involvement of the arms are usually dyskinetics, including athetoids.

To further emphasize how the knowledge and use of the above classifications will form the framework for total planning for the child, the following is an example from a medical evaluation.

Diagnosis: Cerebral palsy; spastic hemiplegia, right, severe; intelligence, borderline; convulsive disorder; generalized motor; hyperkinetic impulse disorder; severe; form-perception disturbance, mild.

Resource: Sidney Keats, *Cerebral Palsy*, Charles C. Thomas Publisher, Springfield, Illinois, 1965.

CARDIAC DISORDERS

Cardiac disorders form another group of children classified as physically handicapped. The following is a functional and therapeutic classification developed by the New York Heart Association and distributed by the American Heart Association. The functional classification represents an estimate of the patient's response to effort. The therapeutic classification represents the physician's recommendation as to the amount of activity the patient is permitted.

The Classification of Patients with Diseases of the Heart

Functional

Class I: Patients with cardiac disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation or pain.

Class II: Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation or anginal pain.

Class III: Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes fatigue, palpitation or anginal pain.

Class IV: Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome are present even at rest. If any physical activity is undertaken, discomfort is increased.

Therapeutic

Class A: Patients with a cardiac disease whose ordinary physical activity need not be restricted.

Class B: Patients with cardiac disease whose ordinary physical activity need not be restricted, but who should be advised against severe or competitive physical efforts.

Class C: Patients with cardiac disease whose ordinary physical activity should be moderately restricted and whose more strenuous efforts should be discontinued.

Class D: Patients with cardiac disease whose ordinary physical activity should be markedly restricted.

Class E: Patients with cardiac disease who should be at complete rest, confined to bed or chair.

Resource: Merle E. Frampton and Elena D. Gall, *Special Education for the Exceptional,* Porter Sargent Publisher, Boston, Massachusetts, 1960

CONVULSIVE DISORDERS

Seizures may be classified as major seizures and minor seizures. They arise from a known cause (symptomatogenic) or an unknown cause (idiopathic). Abnormal seizure pattern may arise from the cortex or subcortical areas.

Major Seizures

Of the major seizures, there may be generalized convulsions (grand mal) or focal seizures (Jacksonian). In the latter, attack arises from demonstrable abnormal foci within the cerebral cortex, while a generalized seizure had no consistent point of origin.

Focal

Focal epilepsy is most important in cerebral palsy. In focal epilepsy the initial phenomenon may be motor, sensory, psychological, loss of consciousness, or automatism. A focal seizure is characterized by local movements of some part of the body spreading to other parts of the body.

Minor Seizures (Petit Mal)

The petit mal seizure (a three-per-second wave and spike electroencephalographic pattern) is characterized clinically by brief interruption in the stream of consciousness. The eyes may stare and often turn upwards while the eyelids blink rapidly. Children may demonstrate a sudden dropping of the head forward or a bending of the whole body to the floor.

Mixed Seizures

Mixed seizures, i.e., major and minor types, can occur frequently. Sometimes, treating a minor seizure will precipitate a major seizure previously unknown to exist in the child.

Resource: William M. Cruickshank, *Cerebral Palsy,* Syracuse University Press, Syracuse, New York, 1966.

GLOSSARY

Ambulatory
walking; able to walk

Aphasia
loss or impairment of ability to understand or use language (see receptive and expressive aphasia)

Asymmetrical tonic neck reflex
when person is lying down and head is turned to one side, the arm (and perhaps the leg) extends on the face side and contracts (flexes) on the opposite side; normal until around six months of age

Articulation defect
a speech problem characterized by difficulty in forming various speech sounds

Athetoid
a type of cerebral palsy in which involuntary movements are present in one or more parts of the body

Auditory
relating to hearing; auditory discrimination refers to an ability to distinguish one sound from another

Body alignment
the proper positioning of the body parts so that undue strain is not put on any one part and deformities are prevented

Cerebral dominance
the natural tendency for one side of the brain (hemisphere) to control certain behaviors

Congenital
present at the time of birth; usually refers to a physical abnormality

Convulsive disorder
a condition in which a person has convulsions; involuntary series of muscular contractions due to a brain disorder

Cretinism
severe thyroid deficiency, usually accompanied by retardation and bodily malformations such as squat and fat stature, saddle-shaped nose, yellow skin and scanty, dry hair

Delayed Speech
a lag in the development of spoken language; usually restricted to those cases due to retardation, emotional problems or lack of stimulating environment

Expressive aphasia
difficulty in speaking a language; difficulty in expression due to a brain disorder

Extensor thrust reflex
uncontrolled extension (straightening) of the arms, legs, head and back upon stimulation or excitement

Extinction
the elimination of behavior through lack of reward or through negative reinforcement (punishment)

Feces
stool or bowel movement

Flexed (flexion)
inward bending of a joint

Non-ambulatory
not walking; unable to walk

Occiput
the protruding back part of the head or the back part of the head at the base of the skull

Occupational therapy
treatment prescribed by a physician to improve physical or mental conditions enabling the patient to become a better functioning member of society; many media are used

Receptive aphasia
difficulty in understanding spoken or written language, due to brain disorder

Reflex
an habitual way of responding; ordinarily refers to inborn tendency for a part of the body to respond to a stimulus in a certain way

Seizure
an attack of a disease; usually refers to convulsion or epileptic attack

Spasticity
A type of cerebral palsy in which there is limited motion primarily in bending (flexor) muscles when the limb is straightened

Spina bifida
an opening in the vertebral column with the covering of the spinal cord (meninges) protruding . . . a developmental defect present at birth

Tension athetosis
a type of cerebral palsy marked by stiffness in the limbs, usually in extensor position

Voice disorders
a defect in the quality or tone of the voice such as high pitched or hoarse

Reference: *Teaching the Mentally Retarded – A Handbook for Ward Personnel* (Several of these terms are adapted from a Manual on Terminology and Classification in Mental Retardation, prepared by Rick Herber, Project on Technical Planning, A.A.M.D., Columbus, Ohio, Vol. 64, No. 2, September, 1959.)

Program Objectives

At the outset it is wise to keep in mind that the broad objectives for the physically handicapped child are basically the same as for any child; that of realization of self-worth, achievement of his highest potential and an opportunity to build a repertoire of skills and abilities on which he may maintain himself and be a contributing member of society.

It must quickly be stated, however, that the task of developing an effective plan of obtaining the above goals must in essence be extremely individualized. Therefore, it is apparent that it becomes necessary to delineate the broad objectives into smaller components which in turn need to be analyzed and developed for each child.

Collecting data from the following questions may serve as an aid in the analysis and development of the program.

1. Does the child have the ability to "live with" the handicap?
2. What techniques does he need to overcome the disability?
3. Does he have the skills for maximum self-help?

4. Can the child communicate by whatever means are possible?
5. What techniques may be utilized to aid the child in obtaining his optimum potential in academic training?
6. What activities need to be presented to improve the child's abilities in the area of perception?
7. Does the child have the ability and skills necessary to express himself in creative activities in music and art?
8. What assets does the student possess which may be developed for adult living?

The ramifications for each of the above are vast. It is possible, however, to implement such an individualized program for each student, through a team approach.

School personnel would consist of the psychologist who would report upon the intellectual functioning of the child, possibilities of disturbances in perception and emotional maturity; the teacher who would report on a prescriptive academic program; the speech therapist who would assess the speech and hearing capabilities of the child and prescribe possible further training; and the public health nurse would gather data on family stresses and medical information.

Consultive services, obtained either through school personnel or community resources, should include the physical therapist, who would appraise the child's manner of ambulation and need for further therapeutic supervision; the occupational consultant who would evaluate the degree of independence in self-care the child has achieved, as well as skills needed for the required school tasks; and the vocational consultant who would project possible occupational goals for the child. After thorough consideration is given to all areas, the final decision as to the comprehensive program is made by the entire staff and is based upon total information available.

Educational Implications

The process of implementing the educational goals and program objectives related to the physically handicapped demands that the teacher be cognizant of a multitude of impinging implications. As stated previously, she will be aided by the "team" but ultimately she has the responsibility of putting the plan into operation. It is therefore necessary to begin with several basic considerations. The educational program for the physically handicap will itself be dictated by the children who are enrolled. Class size, materials and methods will be in direct proportion to the degree of physical disability of the children. A large percentage of these children experience brain lesions which effect not only the capacity to learn but dictate when and for how long learning will take place. In addition, the extent of muscular involvement, hand control and mobility of the child predisposes constant adaptation of materials and methods.

Behavior Disorders

The implications apparent in the phrase "behavior disorders" may be misleading. This is discussed here not as deviant or abnormal behavior but rather as observable and expected behavior which will supply useful data when planning and structuring an education environment. Bakwin and Bakwin, Keats and Cruickshank all list distractability as a major behavior disorder. Keats suggests that this difficulty may be due to two factors. (1) The child may be having petit mal seizures due to constant abnormal stimuli which comes from a damaged area in the temporal lobe; and (2) spasms which might develop due to sudden movement or loud noises. The teacher who is aware of this fact is able to be more understanding and with minimal effort control the environment so there are no sudden loud sounds or movements to disturb the child. She would, however, continue to help the child gradually to accomodate himself to a more noisy environment.

Cruickshank cites perseveration, dissociation and disinhibition as behavior disorders and closely relates them to distractability. Children who are found to have perseverative tendencies are characterized by the persistent repetition of continuation of a word or sentence or action after it has been begun or has recently been completed. Once any mental formation is initiated, it remains and completes its temporal course. Hence, the visual pattern of a word or letter may have an influence on the recognition of a successive word or letter which is somewhat similar or even in some cases quite different from that on which attention has first rested. The teacher will find it necessary to "break-up" this pattern. This may be accomplished by outlining each word with bright crayon or with a teacher-made device such as a piece of cardboard in which a small hole has been cut so that only one word at a time is exposed to the child.

Dissociation involves a tendency on the part of certain children to break up a combination or a configuration into parts. Such an individual finds it difficult to conceptualize entities in terms of a whole. Again the piece of cardboard with a hole might prove effective in aiding the child in gaining attention to the whole rather than its parts. Putting pieces of an arithmetic problem on small cards and putting them together one-by-one is another technique. The instructor should make a definite effort to carry this through step by step to the "whole" and assist the child in making this association. This type of behavior might also be evident in a child who experiences figure-background disturbances. It is difficult for this child to look at a set of figures and keep his attention on the central figure for any period of time.

Motor disinhibition is the inability of the individual to

refrain from reacting to stimuli which elicit motor response. This is the child who is constantly grabbing for articles that are close by even though they have no meaning for the task at hand. Hence this may be controlled by freeing the learning situation itself of stimuli eliciting motor activities. In other words have only those materials that the child needs to complete the task in view and remove unnecessary pencils, clips, crayons and books. Nonpurposeful motor movements inhibit learning while motor movements which can be related to the learaing experience reinforces learning.

Behavior disorders are often observed in children who are *at the physician's* recommendation, on medication. Medication is prescribed most frequently to control seizure activity. While the teacher will not generally be asked to administer the medication, (the principal, health nurse or a parent usually administers medication) it is imperative that she is knowledgable about the drug which the child is using and its effects upon that student. Expected behavioral response will provide a basis for observing abnormal reactions which may occur. These should be reported to the health nurse or proper school authority.

Ralph C. Singer, M.D., Director of Public Health, or the Health and Hospital Corporation of Marion County proposed the following policy regarding giving medication to all school superintendents.

> "Burns Indiana Statutes **Regarding Giving Medication:** Section 63-1311 states that anyone giving medication without a physician's order is practicing medicine illegally and this includes teachers, nurses and other school personnel. Note: On 4/27/66 the Attorney General stated that the above applied to any non-physician making medication **available** to children without a prescription.
>
> The responsibility of the school health nurse is to verify that medication brought to school by students to be given during school hours is by order of a physician and to provide this verified information to the teacher or other responsible school official who may have custody of the medication.
>
> Teachers and other school personnel should not administer or make available any medication unless the school nurse has verified that medication should be given. Written verification can be given by telephone provided it is followed by a written verification to the teacher.

In the administrative manual you will find a letter to parents and a Medication Form which has been helpful in implementing the preceeding proposal. It will be noted that three requests were made of the parent (1) that all medication to be given in school be accompanied with the physician's order and length of time the medication is to be given; (2) medication must be in the original container from the pharmacy; (3) long term medication orders must be renewed every six months or more often if indicated by the doctor.

It is well known that constant research is being pursued in order to discover new medication which will prove to be more effective. The following description and information regarding medication is taken from *Cerebral Palsy* by Eric Denhoff, M.D. This is to be used only as a guide to acquaint the reader with a very brief look at some of the drugs, their names and reactions. It is strongly advised that more extensive study be done using the resources which appear at the end of this section.

> "In order of importance, drugs are selected to (1) control convulsions; (2) allay fear and anxiety; (3) reduce hyperkinesis; (4) favorably influence spasticity, dyskinesia, or imbalance, (5) help adjustment within the family, such as in sleeping, eating, and behavior.
>
> In cerebral palsy, all types of convulsions may be encountered. In cerebral seizures, Mysoline, Dilantin, and Gemonil(R) are the drugs of choice. While phenobarbital is the safest of the anticonvulsant medications, it causes irritable behavior when used over a long period of time with these children. Mebral(R) is in a similar category. Mesantoin(R) and Phenurone(R) are useful when the aforementioned drugs are ineffective. However, they have high potential toxic reactions.
>
> In centrencephalic seizures, Zarontin(R), Tridione(R) and Paradione(R) are most efficacious. Amphetamine sulfate (benzedrine sulfate or Dexedrine sulfate) is a useful adjunct. Generally Mysoline(R) or Dilantin(R) is used conjointly with Zarontin et al. since generalized seizure activity may be stimulated when drugs effective in centrencephalic seizures are used alone. Milontin(R) is often used in mild, mixed types of cases since it is efficacious in both generalized and petit-mal triad types."

ADAPTED CHART ON MEDICATIONS AND THEIR USE FROM ERIC DENHOFF, M.D., *CEREBRAL PALSY*

Anticonvulsant Medication used in CP	Medication used for Hyperkinesis and Learning Problems	Anxiety and Fear Reduction	Muscle Relaxation Medication	Medication for Overall Relaxant Effect
Cerebral Seizures	Dexedrine	Thorazine	Tolserol	Equinal
Mysoline	Benzedrine	Mellaril	Tolseram	Miltown
Dilantin	Suvrem	Taractan	Paraflex	Soma
Gemonil	Deaner		Robaxin	Striatran
Mebaral	Reserpine			Librium
Mesantoin	Ritalin			Valium
Centrencephalic Seizures				
Zarontin				
Tridione				
Paradione				
Dexedrine				
Benzedrine				
Mixed Types				
Phensuximide				
Ethotoin				
Phenacemide				

RESOURCES

Denhoff, Eric, M. D., *Cerebral Palsy-The Preschool Years*, Springfield, Illinois, Charles C. Thomas, Publisher, 1967.

Keats, Sidney, B.S., M.D., *Cerebral Palsy*, Third Printing, Springfield, Illinois, Charles C. Thomas, Publisher, 1970.

Bakwin, Harry, M.D. and Ruth Morris Bakwin, M.D., *Clinical Management of Behavior Disorders in Children*. Philadelphia and London, W. B. Saunders Co., 1968.

Cruickshank, William, *Cerebral Palsy, Its Individual and Community Problems*, Syracuse, New York, Syracuse University Press, 1966.

PERCEPTION

Perception as related to behavior disorders and learning present implications for educational directives. The area is beset with vastness, complexity, and difficulty of definition and understanding. However, it is inconceivable that perceptual training would not form the basis for structuring the learning experiences in the classroom and also be the foundation for observing behavioral responses in the child.

Eric Denhoff states "The perceptual disorders are a more subtle variety of neurological dysfunction which are more readily identifiable on psychological tests than opon neurological examination. This aspect of cerebral dysfunction may be responsible for poor academic skills, especially writing and reading. These children are unable to reproduce information that is received through the intake neurosensory systems; visual, auditory, smell, and touch. Visual motor deficit is the more commonly found component. It is characterized by impaired eye-hand coordination which causes an inaccuracy in the reproduction of written geometric forms. As a result, such a child may be unable to write English alphabet symbols without reviewing them. He may be unable to make proper spacing between letters, words, or phrases."

The physically handicapped child may have experienced injury or lack of development to the brain which disturbs both the motor and sensory functions of the organism. Therefore many behavioral responses will be directly related to the processing of incoming stimuli which is not consistant or meaningful. It is expected of the student to perceive information from the environment, interpret that information and then to respond with controlled and effective behavior. This demands close ineraction among the sensory receptors, the brain, and the motor response. With many of his motor abilities hampered and sensory channels damaged the physically handicapped child needs constant, sequential, and sound developmental training in this area. The reader is referred to such authors as Piaget, Cruickshank, Myklebust and Johnson, Kephart, Vallet and Frostig.

Bakwin and Bakwin states:

> "The most common perceptual defects observed when cerebral palsied children are tested are figure-ground reversals, confusion in spatial orientation, and specific distortions in form perception such as consistently confusing the square, diamond, and rhomboid, but succeeding with the star, half-circle, and cross on the form board."

The following is a partial list of perceptial training areas and resources for obtaining materials.

Programming Learning Disabilities
Robert E. Vallet — 2165 Park Boulevard
Fearon Publishers — Palo Alto, California

Gross Motor
- Rolling
- Sitting
- Crawling
- Walking
- Body Localization

Perceptual Motor Skill
- Auditory Acuity
- Auditory Decoding
- Auditory Memory
- Auditory-vocal Association
- Auditory Sequenciny

Visual Acuity
- Visual Coordination and Pursint
- Visual Form Descrimination
- Visual Figure Ground
- Visual Memory
- Visual-motor Integration

The Frostig Program for the Development of Visual Perception
Marianne Frostig and David Horne
Follett Educational Corporation
Chicago, Illinois

- Visual–Motor Coordination
- Figure–Ground Perception
- Perceptical Constancy
- Preception in Space
- Perception of Spatial Relationship

The Slow Learner in the Classroom
Third Printing 1970
Newell Kephart
Charles E. Merrill Publishers
1300 Alum Creek Drive
Columbus, Ohio 43216
Motoric Aids to Perceptual Learning
Newell Kephart

SELF CARE

Self care activities, of necessity, must also be carefully initiated, sequencially planned and individually structured for each child. This area cannot be taught randomly. Often activities must be taught, learned and repeated again and again over a long period of time. Daily activities which other children seem to master quickly must be broken down to the simplest segments for the child to be successful with the task. Maximum independence of each individual child is the goal. Sidney Keats states:

> "The normal human being is a highly integrated organism, all parts mutually dependent, and functions interrelated. With the interruption of these pathways the approach to training must vary from that approach of the individual with perfect integration. Learning may have to go back to the basic level of the conditioned reflex, that is, repetition of a particular sensory stimulus to lay down a motor-sensory pathway, since the early stages of learning are accomplished primarily by conditioning; the more advanced stages are the result of perceptual processes in which previously conditioned patterns are developed into more complex patterns. When the motor-sensory pathways are faulty the individual cannot form a plan of movement to accomplish skilled, purposeful activity, and thus requires therapy to train him to accomplish many purposeful activities."

The reader is referred to:

Keats, Sidney, *Cerebral Palsy*,
Charles C. Thomas Publishers,
Springfield, Ill., 3rd Printing, 1970

which includes information under the title of Physical Therapy, Occupational Therapy and a detailed description of Dressing Techniques.

Additional Resources:

The Cerebral Palsy Clinic at the Indiana University Medical School has several good resource guides on feeding and dressing.

Bernstein, Bebe, *Everyday Problems and the Child with Learning Difficulties*, The John Day Company, 62 West 45th Street, New York, New York, 1967.

COMMUNICATIONS

Speech defects in the physically handicapped child and especially in those children with cerebral disfunction are of major concern. The multiplicity of etiologies, defects and treatment are overwhelming. The importance of open communication and team effort of the speech therapist, teacher, parent, physical therapist and physician cannot be stressed enough. The ultimate goal is that the child may be successful in communicating by whatever means possible. This cannot be obtained unless the aim of treatment is to treat the whole child.

Speech is a motor act. It entails proper breathing, tongue and lip activity. The actual physical manipulation in addition to sensory deprivation in the severely handicapped child will make progress slow and treatment extremely complicated. Many methods have been developed for use in speech therapy, such as Mysak, Westlake and Rutherford.

The development of a program of speech therapy for the physically handicapped child should give consideration to the following:

1. The neurological involvement of the child
2. The related sensory defects experienced by the child
3. The level of development which the child has reached
4. The minimum and maximum expectations for the present and future
5. An evaluation of specific failure points which need treatment

6. The establishment of techniques which will aid the child in articulation, voice and speech disorders

Resources:

Van Riper, Charles, *Speech Correction*, Fourth Edition, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1963

Cruickshank, William M., *Cerebral Palsy*, Second Edition, Syracuse University Press, Syracuse, New York, 1966, Chapter V

Keats, Sidney, *Cerebral Palsy*, Third Printing, Charles C. Thomas Publishers, Springfield, Ill., 1970. Chapter V, pages 186-199

WRITING

Writing may be a difficult means of communication for the physically handicapped child. It will require precision teaching to produce the necessary proficiency desired. Prerequisite skills must be established, such as matching concrete objects and pictures, discrimination of forms and reproduction of simple patterns. The child should be able to sit reasonably upright in a chair, with or without support. The sutdent should have moderate control of shoulder, arm, wrist and hand. Adequate eye-hand coordination and the ability to hold a writing tool with or without an adaptive device is also necessary.

Wreatha Patterson proposes many excellent suggestions in *Methods in Special Education*. (Haring and Schiefelbusch, Editors).

> "Learning to write as it is normally taught is practically impossible for many neurologically impaired children. The reasons are obvious when one considers some of the children's learning disabilities. Dissociation makes a letter look different, as ↄ for "b." Rotation turns a letter, as ϧ . Reversals make a "b" appear as a "d" or "p." "was" as "saw," and vice versa. Perseveration can make an *mm* out of "n." Distractibility makes it difficult for the child to attend to the task. All in all, a child with these problems is likely to find the task insurmountable."

There is controversy in regard to teaching cursive writing or manuscript printing. Some propose the child definitely reads more from the printing form than the cursive. However, others present the premise that only one form of writing would have to be mastered if cursive were taught. Some express the theory that it is easier to see the whole word (gestalt) with cursive writing, while others purport formations in manuscript printing are easier manipulated by the child. The teacher must make the decision based on her findings which will produce success for the student.

INTELLECTUAL FUNCTIONING

The intellectual functioning ability of the physically handicapped child is difficult to assess. Several studies have proven, due to the neurologic lesion, motor involvement, perceptual defects, language deficiency, emotional factors and medication, that a large portion of these children will function intellectually in the borderline or dull range. Even when test allowances were made for the physical handicap a large percentage were found to be intellectually defective.

In attempting to ascertain the range of intellectual ability of the physically handicapped child it is recognized that no test is suitable and that timed tests are most inappropriate. Bakwin and Bakwin suggest the following:

The Merrill-Palmer Performance Test
This test relied little on speech.

The Revised Standord-Binet Scale
This test is almost entirely verbal.

The Wechsler Intelligence Scale for Children (WISC)
This test is both verbal and performance which is scored separately, and has advantages over the two above mentioned.

The Vineland Social Maturity Scale
This test is valuable, especially for younger children, since the information may be obtained from a parent or other informant if the child is unable to give it himself.

The Columbia Mental Maturity Test
This test is used for visual perception, categorization, and abstraction.

Raven's Progressive Matrices Test
This test is a non-verbal intelligence test based on visual form perception.

The Ammons Full-Range Picture Vocabulary Test.
This test requires only minimum motor performance.

The Goodenough Draw-a-Person Test
This test will give an estimate of intelligence if the child is not too handicapped in motor skill.

The Peabody Picture Vocabulary Test
This is a non-verbal picture recognition test giving mental age and IQ.

The Illinois Test of Psycholinquistic Ability (ITPA)
This test may be used for determining levels of language function.

CLASSROOM MANAGEMENT

Classroom atmosphere and achievement of the student are directly inter-related. The establishment of a suitable climate within in the classroom which is consistent, structured, firm yet relaxed will be of extreme benefit to the child. Classrooms are usually too cluttered and distracting for these children. The teacher will find children function more adequately when much of the extraneous stimuli is deleted from the room. Charts, pictures and materials should be kept out of sight until the scheduled time for their use. This will aid the child in directing his full attention to the task. Excess movement within the classroom should be kept to a minimum. Corners of the room partitioned off may be used as offices for the children in which to complete assigned work. Portable dividers constructed on the child's desk provide barriers for minimal and purposeful movement in the classroom.

Wretha Petersen suggest the following guide to which the classroom teacher may wish to refer.

Do deal with the children in a positive manner.

Do deal with the children with consistency.

Do accept the children as worthwhile individuals.
Do make sure that the child always completes a task correctly even if the teacher must help him do so.
Do correct the child's work as soon as possible after completion.
Do use color extensively.
Do use manipulative materials extensively.
Do remember that the child needs much help in integrating learned facts and behavior.
Do evaluate every bit of work given to each child in light of his abilities and disabilities.
Do remember the child wants and needs to succeed.
Do provide an environment in which the child can gradually learn to assume more and more responsibility for his own behavior.
Do not expect miracles overnight.

Resource: *Methods in Special Education* Haring and Schiefelbusch, Editors

In structuring the classroom situation the teacher has many factors to evaluate. All facets have not been covered in detail in this guide, however the reader has been referred to many resources. It is strongly urged that several of these be obtained for easy accessible reference. It would be suggested that an outline or checklist could be formulated in which a composite profile of the child would evolve. Priorities could then be established and staff assigned for instruction.

Due to the functional level of most of these children the teacher may find several Educable Mental Retardation and Trainable Mental Retardation guides and curriculums helpful These guides often "break down" the task in the simplest, most structured manner. The reader is again referred to Bakwin and Bakwin, pages 145-155.

Recommended Curriculum Guides

Curriculums for the EMR and TMR may be obtained from the Wisconsin Department of Public Instruction.

Objectives and Goals of Programs for the Educable Mentally Retarded may be obtained from the Division of Special Education/Curriculum Series, Indiana Department of Public Instruction.

Guide to Early Developmental Training, Wabash Training Center, Lafayette, Indiana, for Trainable Mentally Retarded. Obtainable from Instructional Material Center, Butler University, 4200 Sunset Blvd., Indianapolis, Indiana.

Environmental Learning

ROOM DESIGN

The classroom for the physically handicapped child should be of ample size to allow free movement of children using wheelchairs, crutches and canes. Ideally it would be located on ground level with easy access to the transportation area. However, when this is not possible ramps may be designed to provide entrance to the classroom. Consideration should be given to eliminating threshold boards in the doorways and providing door checks to keep doors open for passage. A wall to wall rug covering will provide necessary quieting of the classroom, firmness for walking with canes or crutches and make the floor available for crawling and rolling mobility of the students. Toilet areas should be equipped with rails and supports where needed to facilitate as much independent manipulations as possible.

DESKS AND CHAIRS

Desk may be designed and constructed for each individual child from plywood or purchased from school equipment distributors. Desk commercially obtained should provide adequate width as well as legs which telescope to accommodate wheelchairs of different heights. Racks to hold books may be placed at the side within convenient reach of the student. A small molding around the outside edge of the desk surface will prevent crayons and pencils from sliding to the floor. Also blotters, the width of the desks may be taped to the surfaces to prevent paper from sliding.

Resource: for table–Toledo Metal Furniture Co., 1100-1200 Hastings Street, Toledo, Ohio 436077.

Chairs need to be adapted to each child to keep the body in as normal a position as possible. Straps may be used to prevent sliding or slipping to the front or side of the chair. These straps should be approximately two inches wide to prevent injury to the skin, removable and made of washable duck or twill. Good common sense will dictate many procedures with these children but caution should be exercised in strapping across the chest which might inhibit breathing. A standing chair with tray will permit the child to do activities while also strengthening his body and establishing balance.

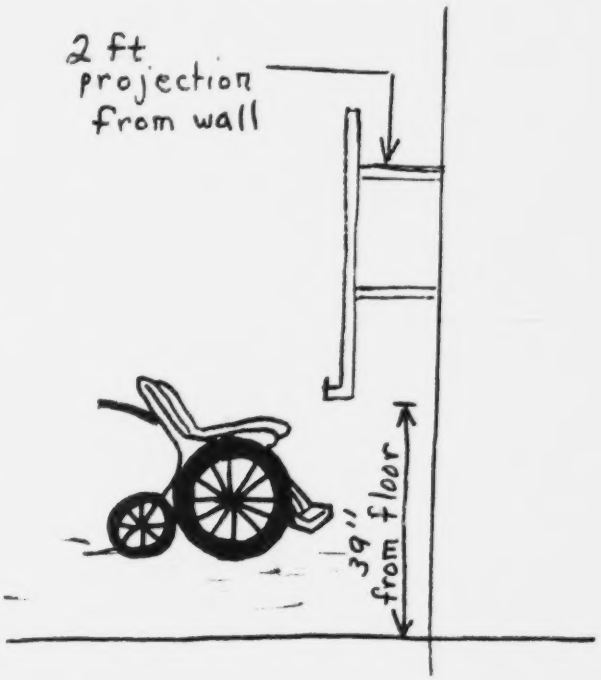
Resource: *Pattern for desk* – Ruth B. Hofmann, *How to Build Special Furniture and Equipment for Handicapped Children*, Springfield, Illinois Charles C. Thomas. 1970.

Pages 16-19.

BLACKBOARDS

Wall blackboards should be placed at normal height so that those children who can support themselves will have easy access. Ideally a blackboard extended approximately two feet from the wall with a lower clearance of 39" from the floor would provide use for those children in wheelchairs. A blackboard 24" by 36" would provide for one person in a wheelchair or two students standing. Small individual blackboards 18" by 24" laid on the child's desk suffice for much of the regular blackboard instruction. A slant board (instructions listed in book by Ruth B. Hofmann) would allow the blackboard to be placed in a horizontal position as well as verticle.

Resource: *How to Build Special Furniture and Equipment for Handicapped Children* Pages 82-83.



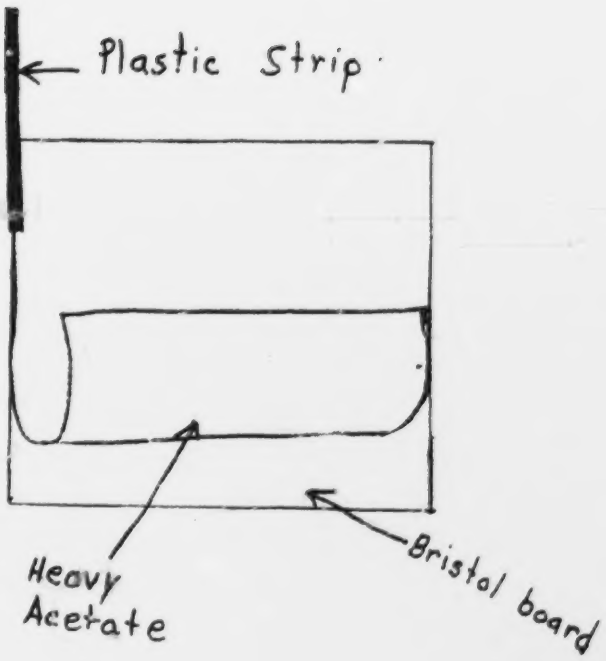
ACETATE BOARDS

Acetate boards provide a versatile teaching aid. These are constructed from heavy bristol board cut desk top size. Heavy acetate cut equal size and held into place with plastic slides may be drawn on with crayon or grease pen and erased with toweling or tissue. Materials for practice and drill may be placed between the bristol board and acetate and reused numerous times.

Materials

Bristol board and Plastic Strips — obtain from Kiger & Co., 1830 W. 16th St., Indianapolis, Indiana.

Acetate (heaviest quality) — obtain from H. Lieber Co., 24 W. Washington St., Indianapolis, Indiana.



TYPEWRITER

An electric typewriter with a key guard will make it possible for some children to respond in written form when they do not have sufficient fine motor skills established to use a pencil. In addition to being an excellent motivating factor, children for the first time experience a successful way to communicate. They find that they can "write" and someone can read and interpret what they wrote.

WHEEL CHAIRS

Wheel chairs become a permanent fixture in the classroom for the physically handicapped as do crutches, walkers, and canes. Since the student may spend a major portion of the day in the wheelchair it should afford adequate support to the body. In order to achieve this, it may be necessary to "adapt" the wheelchair to the individual. Agencies such as the Cerebral Palsy Clinic at Indiana University Medical Center may provide this service, or upon the advice of a physician an adapted chair may be built at home. The reader is referred to two resources of merit.

Hofmann, Ruth B., *How To Build Special Furniture and Equipment for Handicapped Children*, Charles C. Thomas, Springfield, Illinois, 1970.

Bensberg, Gerald J., Editor, *Teaching the Mentally Retarded*, Southern Regional Education Board, 1965. Chapter 4.

The upkeep of the wheelchairs, how many to purchase and what kind also are problems to be solved. Through experience it was found to be feasible to utilize one wheelchair at home and another at school. This gave opportunity for the parent to use the home wheel chair to

move the child to the bus and the wheel chair at school would provide means for the teacher to transport the child from the bus to the classroom. In cases where the child was transported to school by the parent, the chair was brought also. Children who use canes and walkers may also need wheelchairs available for use in fieldtrips and for quick removal in case of fire.

Braces

Braces are a real concern to the classroom instructor. If a physical therapist is available, the teacher should rely heavily on her advice. Braces will need to be locked and unlocked at suitable times during the day. It is necessary that the teacher obtain as much information and advise as needed from the physical therapist, physician, clinic, or parents. Cruickshank states:

> In cerebral palsy, braces are used for support, correction of deformity, and the control of extra motion as, for example, with the athetoid . . . Parts of the brace may be classified under these headings: uprights, crossbands, joints, stops, cuffs, pelvic bands, gluteal pads, and knee pads . . . Braces may be attached to the shoe in several ways. Permanent attachment may be used, which necessitates putting on the shoe and brace at the same time, however, many braces are now made which can be removed from the shoe . . . The types of attachments of braces on shoes are (1) a caliper attachment and (2) a stirrup attachment. The round caliper fits into a metal attachment inserted into the heel of the shoe.

Resource: William M. Cruickshank, *Cerebral Palsy*, Syracuse University Press, Syracuse University, 1966.

Resource Guide

GENERAL

Denhoff, Eric, and Isabel Pick Robinault, *Cerebral Palsy and Related Disorders*, McGraw-Hill Book Company, Inc., New York, Toronto, London, 1960.

Keats, Sidney, *Cerebral Palsy*, Charles C. Thomas, Publisher, Springfield, Illinois, Third Printing 1970.

Cruickshank, William, *Cerebral Palsy, Its Individual and Community Problems*, Syracuse University Press, Syracuse, New York, Second Edition 1966.

Cruickshank, William M., Bentzen, Frances A. Ratzburg, Frederick H., and Miriam T. Tannhauser, *A Teaching Method for Brain-injured and Hyperactive Children*, Syracuse, New York, Syracuse University Press, 1961.

Haring, Norris G., and Richard L. Schiefelbusch, *Methods in Special Education*, McGraw-Hill Book Company, New York, Toronto, London, 1967.

Holt, K. S., *Assessment of Cerebral Palsy*, Lloyd-Luke (Medical Books) LTD London, 1965.

Frampton, Merle E. and Elena D. Gall, Editors, *Special Education for the Exceptional*, Porter Sargent Publisher, 1960.

Exceptional Pupils, Special Education Bulletin No. 1 (Revised), State of Indiana, Office of the State Superintendent of Public Instruction, Division of Special Education, 1968.

Denhoff, Eric, *Cerebral Palsy-The Preschool Years*, Charles C. Thomas, Publisher, Springfield, Illinois, 1967.

Bakwin, Harry and Bakwin, Ruth Morris, *Clinical Management of Behavior Disorders in Children*, W. B. Saunders Co., Philadelphia, 1968.

Meacham, Merle L. and Allen E. Wiesen, *Changing Classroom Behavior: A Manual for Precision Teaching*, International Textbook Company, Scranton, Pennsylvania 1970.

Erickson, Marion J., *The Mentally Retarded Child in the Classroom*, Ypsilanti Public Schools, Ypsilanti, Michigan, The MacMillan Co., New York, New York, 1966.

Frankel, Max G., F. William Happ, and Maurice P. Smith, *Functional Teaching of the Mentally Retarded*, Charles C. Thomas, Publisher, Springfield, Illinois, 1969.

Kolstoe, Oliver P., *Teaching Educable Mentally Retarded Children*, Holt, Rinehart and Winston, Inc., New York, Chicago, San Francisco, 1970.

Phillips, John L. Jr., *The Origins of Intellect, Piaget's Theory*, W. H. Freeman and Co., San Francisco, California, 1969.

PERCEPTION

Barsch, Ray H., *Enriching Perception and Cognition*, Vol. 2, Special Child Publications, Seattle, 1968.

Barsch, Ray H., *Achieving Perceptual-Motor Efficiency*, Vol. 1, Special Child Publications, Seattle, 1968.

Johnson, Doris J. and Myklebust, Helmer R., *Learning Disabilities*, Grune and Stratton, New York, 1967.

Bush, Wilma Jo and Giles, Marian Taylor, *Aids to Psycholinguistic Teaching*, Charles E. Merrill Publishing Co., Columbus, Ohio, 1969.

Valett, Robert E., *Programming Learning Disabilities*, Fearon Publishers, Palo Alto, Calif., 1969.

Valett, Robert E., *The Remediation of Learning Disabilities*, Fearon Publishers, Palo Alto, California, 1969.

Cratty, B., *Developmental Sequences of Perceptual-Motor Tasks*, Freeport, L. I., New York, Educational Activities, Inc., 1967.

Frostig, Marianne, and David Horne, *The Frostig Program for the Development of Visual Perception*, Follett Educational Corporation, Chicago, Illinois.

Kephart, Newell, *The Slow Learner in the Classroom*, Charles E. Merrill, Publishers, Columbus, Ohio, Third Printing, 1970.

Bernstein, Bebe, *Everyday Problems and the Child with Learning Difficulties*, The John Day Company, New York, New York, 1967.

Smith, Robert M., *Teacher Diagnosis of Educational Difficulties*, Charles E. Merrill Publishing Co., Columbus, Ohio, 1969.

McCarthy, James J. and Joan F., *Learning Disabilities*, Allyn and Bacon, Inc., Boston, Mass., 1970.

SPEECH

Van Riper, Charles, *Speech Correction*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey. Fourth Edition, 1963.

PARENTS

Barsch, Ray H., *The Parent of the Handicapped Child*, Charles C. Thomas, Publisher, Springfield, Illinois, 1968.

EQUIPMENT

Bensberg, Gerard J., Editor, *Teaching the Mentally Retarded*, Southern Regional Education Board. Atlanta, Georgia, 1965.

Hofmann, Ruth B., *How to Build Special Furniture and Equipment for Handicapped Children*, Charles C. Thomas, Publisher, Springfield, Illinois.

ADDITIONAL

Physical and Health Handicaps (Bibliography.) CEC Information Center On Exceptional Children, Arlington, Virginia.

Snoop, An Introduction to Learning Disabilities, (Annotated Bibliography) Instructional Materials Center, Butler University, Indianapolis, Indiana

Publisher Catalog, Instructional Materials Center, Butler University, Indianapolis, Indiana.

Eric Document Reproduction Service, 493
Educational Resources Information Center (ERIC), U.S. Department of Health, Education and Welfare, Office of Education, Washington, D. C. – 4936 Fairmont Avenue Bethesda, Maryland 20014

Agencies

Indiana Chapter
National Multiple Sclerosis Society
615 North Alabama Street
Indianapolis, Indiana 46204

Indianapolis Employment Security Division
10 North Senate Avenue
Indianapolis, Indiana 46204

Indiana Heart Association, Inc.
615 North Alabama Street
Indianapolis, Indiana 46204

Indiana Society for Crippled Children and Adults, Inc.
3616 North Sherman Drive
Indianapolis, Indiana 46218

Indiana State Board of Health
(Commission for the Handicapped)
1330 West Michigan Street
Indianapolis, Indiana

Office of the State Superintendent of Public Instruction
Division of Special Education
State House
Indianapolis, Indiana 46204

Indiana State Department of Public Welfare
Division of Services for Crippled Children
State Office Building
100 Senate Avenue
Indianapolis, Indiana 46204

Indiana State Library
Division of the Physically Handicapped
140 North Senate
Indianapolis, Indiana 46204

Muscular Dystrophy Associations of America, Inc.
3716 North Sherman Drive
Indianapolis, Indiana 46218

National Cystic Fibrosis Research Foundation
5420 North College Avenue
Indianapolis, Indiana 46220

The National Foundation — March of Dimes
3728 North Shadeland Drive
Indianapolis, Indiana 46227

National Paraplegia Foundation, Inc.
Indianapolis Chapter
1808 North Moreland Avenue
Indianapolis, Indiana 46222

Tri-State Epilepsy Association, Inc.
210 Locust Street
Evansville, Indiana 47708

United Cerebral Palsy of Indiana
615 North Alabama Street
Indianapolis, Indiana 46204

Vocational Rehabilitation Division
1028 Illinois Building
17 W. Market Street
Indianapolis, Indiana 46204

Compiled in *Exceptional Pupils*, Special Education Bulletin No. 1 (Revised). State of Indiana, Office of Public Instruction, 1968.

The Multiply Handicapped Child
State Guidelines

GUIDELINES FOR COMPREHENSIVE SPECIAL EDUCATION PLANS AS REQUIRED BY CHAPTER 396, ACTS OF 1969

J. The Multiple Handicapped

Multiple handicapped children are those with two or more handicapping conditions which interact and result in problems so complex that placement in programs designed for children with single handicaps is not advisable.

1. **Population Base** — A total school population base of approximately 30,000 children may be needed in order to serve the severely multiple handicapped.

2. **Joint School Services and Supply Program** — If a school corporation is unable to provide an adequate program, it must plan to join with other school corporations in a cooperative program.

3. **Diagnostic-Teaching Center** — A Special resource classroom, or area, should be designed and organized as a Diagnostic-Teaching Center. The purpose of this interim special class should be to assess the learning strengths and weaknesses of seriously multiple handicapped children during a medium to long-range period of time using a diagnostic and prescriptive teaching approach. The basis for such a class should be to assure that every school age child in the community shall receive the benefits of educational opportunity intended by Chapter 396.

   Multiple handicapped children shall remain in the Diagnostic-Teaching Center only until such time conclusions are reached concerning the most appropriate program for each child. Placement is then to be made into the proper school program or necessary referral and follow-up action is made.

4. **Grouping Arrangement** — Special class arrangements will be necessary for most seriously multiple handicapped children. The individual needs of each multiple handicapped child must become the basis for program planning. The nature of the particular programs needed by multiple handicapped children can usually be determined following the administration, or review, of complete diagnostic evaluations. In most other cases, determination can be made following intensive work with children over a period of time in a Diagnostic-Teaching Center. Special classes may be necessary for children who are: (examples)

   a. Physically handicapped and mentally retarded
   b. Hearing handicapped and mentally retarded
   c. Educationally handicapped and mentally retarded
   d. Visually handicapped and educationally handicapped

   There must be maintained a consistent on-going evaluation of each multiple handicapped child. With careful use of aids a para-professionals many multiple handicapped children may be able to participate in programs designed for children with single handicaps.

5. **Class Size** — The maximum number of children per teacher in programs following the patterns suggested in Section 4 above should be 6-12.

6. **Secondary School Program** — The secondary school program should include two major emphases to accommodate two widely varying groups of children:

   a. Regular subject-matter curricula for intellectually average or superior physically handicapped students.

   b. A program shall be work-oriented in nature to provide physically handicapped students with opportunities for work-study assignments, prevocational counseling, and prevocational training. The provisions in Section D.6. are applicable.

7. **Para-Professionals and/or Aides** – The use of classroom para-professionals and/or aides is encouraged as per rules and regulations of the Commission on General Education (in preparation).

8. **Other Personnel** – Provisions for the use of pre- and post-placement "staffings" incorporating the use of a professional team for continuing evaluation is recommended. Personnel should include the special teacher, the director of special education, school psychologist, school social worker, guidance worker, etc.

Educational Implications

The Multiply Handicapped Child numbers many children when those children are measured by the criteria of possessing one or more handicaps. There are also numerous combinations, such as deaf-retarded, blind-retarded, deaf-blind, cerebral palsy and partially sighted, cerebral palsy and hard of hearing and the list goes on. Many physically handicapped children should also be considered under the listing of Multiply Handicapped.

When children are observed, it is almost always possible to conclude that there is more than one handicapping condition. The large problem exists when it is attempted to more formally test or evaluate the child. This becomes an extremely complex task because the child is so complex.

Due to the complexity and vastness of problems, it would not be feasible to attempt to set forth educational procedures for the multiply handicapped child. However, the previous section on the physically handicapped was written within the framework of consideration for the multiply handicapped. Other sections in this West Central Joint Services guide such as the Trainable Mentally Retarded, Partially Sighted, Hard of Hearing, Emotionally Disturbed and the Speech resources may be utilized. Coupled with the Physically Handicapped guide they would provide many helpful suggestions in meeting the needs of the Multiply Handicapped Child.

Resource: Wold, James M. and Robert M. Anderson, *The Multiply Handicapped Child,* Charles C. Thomas, Publisher, Springfield, Illinois, 1969.

Frampton, Merle E. and Elena D. Gall, *Special Education for the Exceptional,* Porter Sargent Publishers, Boston, Mass., 1960. Chapter II, Section V.